Section 4: Classroom Level Impact

The SEAs application describes how the many facets of its Reading first plan will result in improved classroom reading instruction. The application includes the SEA's vision for how a Reading First classroom will look and demonstrates the integration and coherence among the many components of the plan. The application must specifically address the following: (See also Section 1b)

A. Key Reading First Classroom Characteristics – What is the SEA's vision for how a Reading First classroom will look?

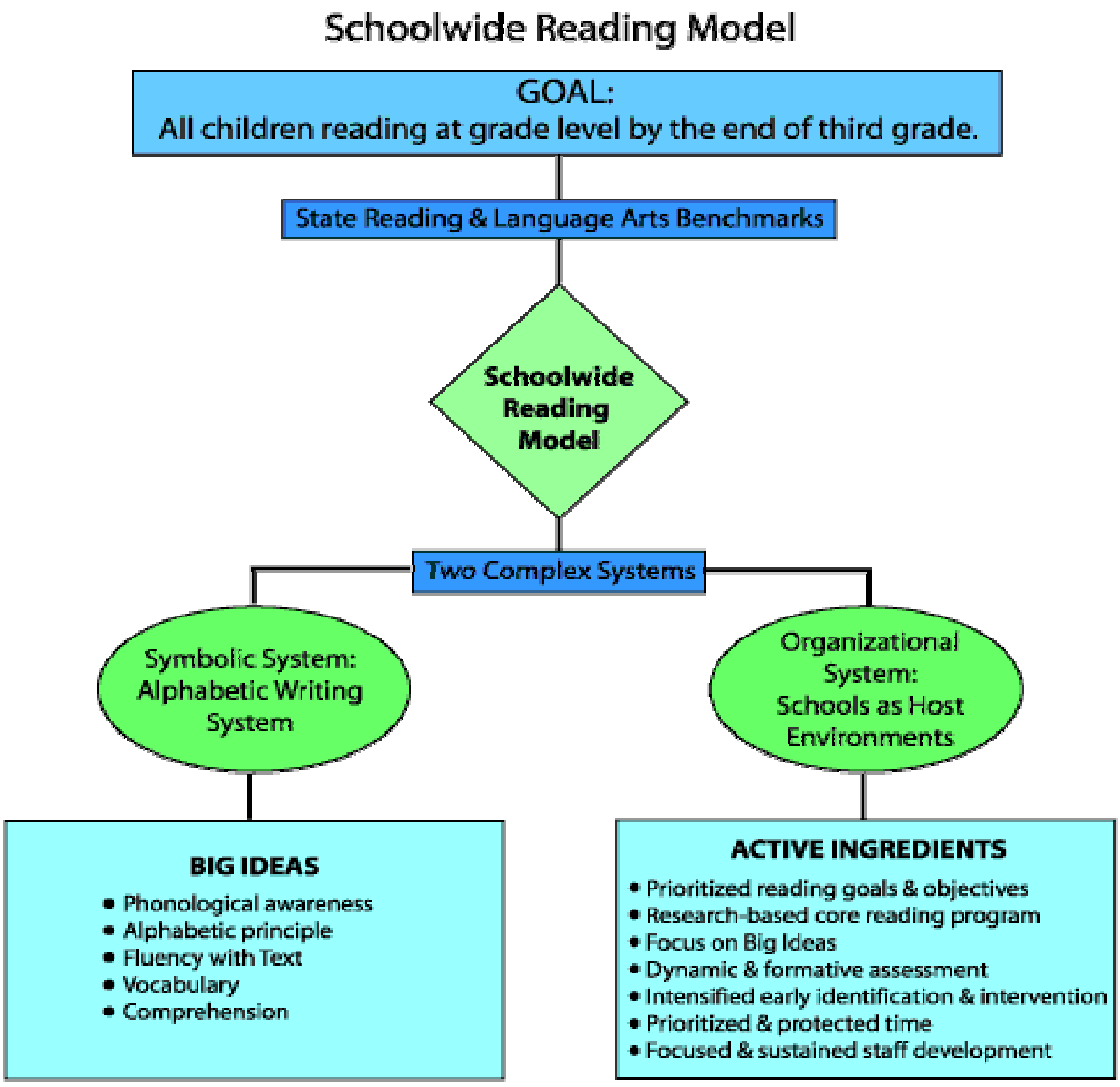
B. Coherence – How will the SEA demonstrate that all activities are based on scientifically based reading research and integrated in a coherent manner? Note: Although reviewers will evaluate the overall coherence of the SEA's plan, applicants need not specifically address this topic as a separate section of the application.

Approximately 14 schools will participate as Reading First schools in Alaska Reading First. Participant schools will change their classroom reading instruction by implementing a research-based Schoolwide Beginning Reading Model.(http://reading.uoregon.edu/logistics/index.php) The five stages of this model are described following a brief rationale for targeting the school as the primary unit of change and is modeled after Oregon's Reading First Plan.

An organizing principle of the literature on school change suggests that the problem of scaling up actually requires "scaling down," implying that large, urban districts must behave organizationally, administratively, and pedagogically like small districts (Elmore, 1996). That is, instructional variables within school jurisdictions that account for differences in learner performance are the same across districts irrespective of size. The fundamental sameness about reading improvement is that within every school's jurisdiction there are alterable variables (Carroll, 1963) capable of producing positive and sustainable results for the full range of learners. These alterable variables are constant across schools irrespective of size or location.

Schoolwide reading improvement involves the integration of two complex systems: (a) the symbolic system implicated when reading in an alphabetic writing system, and (b) the complex organizational and administrative systems implicated when attempting to organize and implement what is known about reading in a host environment comprised of people, practices, pedagogy, and policy known as schools. The following graphic (Figure 1) details the elements of both systems and the need for strategic integration to assist schools in attaining the goal of all children reading by Grade 3.

Figure 1: Two complex systems in Schoolwide Beginning Reading Improvement Model



The graphic is necessarily simplistic and belies the complexity of the process. The action plan, nonetheless, is similar irrespective of school size, site, or socioeconomic status. In the following section, we describe a set of tenets to guide the Alaska Reading First model. In addition, we discuss a schoolwide model of reading achievement for translating research into practice.

Statewide Beginning Reading Model: Tenets and Stages

We propose that the school must be the fundamental unit of change to effect significant and sustainable reading improvement. The Alaska Reading First model of reading improvement will adhere to research-based tenets (Figure 2 below).

Figure 2: Tenets of the Schoolwide Beginning Reading Model
Schoolwide reading improvement:

(a) addresses reading success and reading failure from a schoolwide systemic perspective,
(b) embraces a prevention framework by intervening early and strategically during the critical window of instructional opportunity,
(c) recognizes and responds to the multiple contexts of reading achievement including carefully articulated goals, research-based programs, dynamic assessment, adequate and protected time, quality instructional delivery, differentiated instruction, and effective organization and grouping,
(d) develops and promotes a system of instruction based on a research-based comprehensive reading program and supplemental materials,
(e) anchors instruction and practices to the converging knowledge base of effective reading practice,
(f) builds capacity in the school by using school-based teams to customize interventions to the host environment,
(g) relies on and fosters the ability of the school principal to serve as the instructional leader, and
(h) uses formative, dynamic assessments of student performance to screen students for reading problems, diagnose instructional needs, monitor progress, and determine outcomes.

Collectively, these principles characterize an approach to reading improvement that is proactive, intensive, effective, and sustainable for the full range of learners in schools. Next, we delineate a set of actions and decisions Reading First schools will undertake as they work toward the goal of all children reading by Grade 3.

The architectural blueprint of the Alaska Reading First model is framed by five successive stages of commitments, goals, and activities in each Reading First School. Within each stage are two distinct levels that operate concurrently—a school level and a student level (See Figure 3). The premise of the two levels is that school-level decisions have consequences for ALL individual students. Similarly, in order to address all students, a model must necessarily address EACH student. Therefore, a schoolwide model must plan for both school-level procedures and provisions for the needs of each individual student.

The model and its decision-making processes draw extensively on the work in reading assessment of Kaminski and Good (1996) and Shinn (1998) and combines their procedures for identifying, grouping, problem solving, and performance monitoring with the work of Kame‘enui and Simmons’ (1990; 1998; 2000) components of contextual interventions to reflect an integrated and comprehensive intervention model.

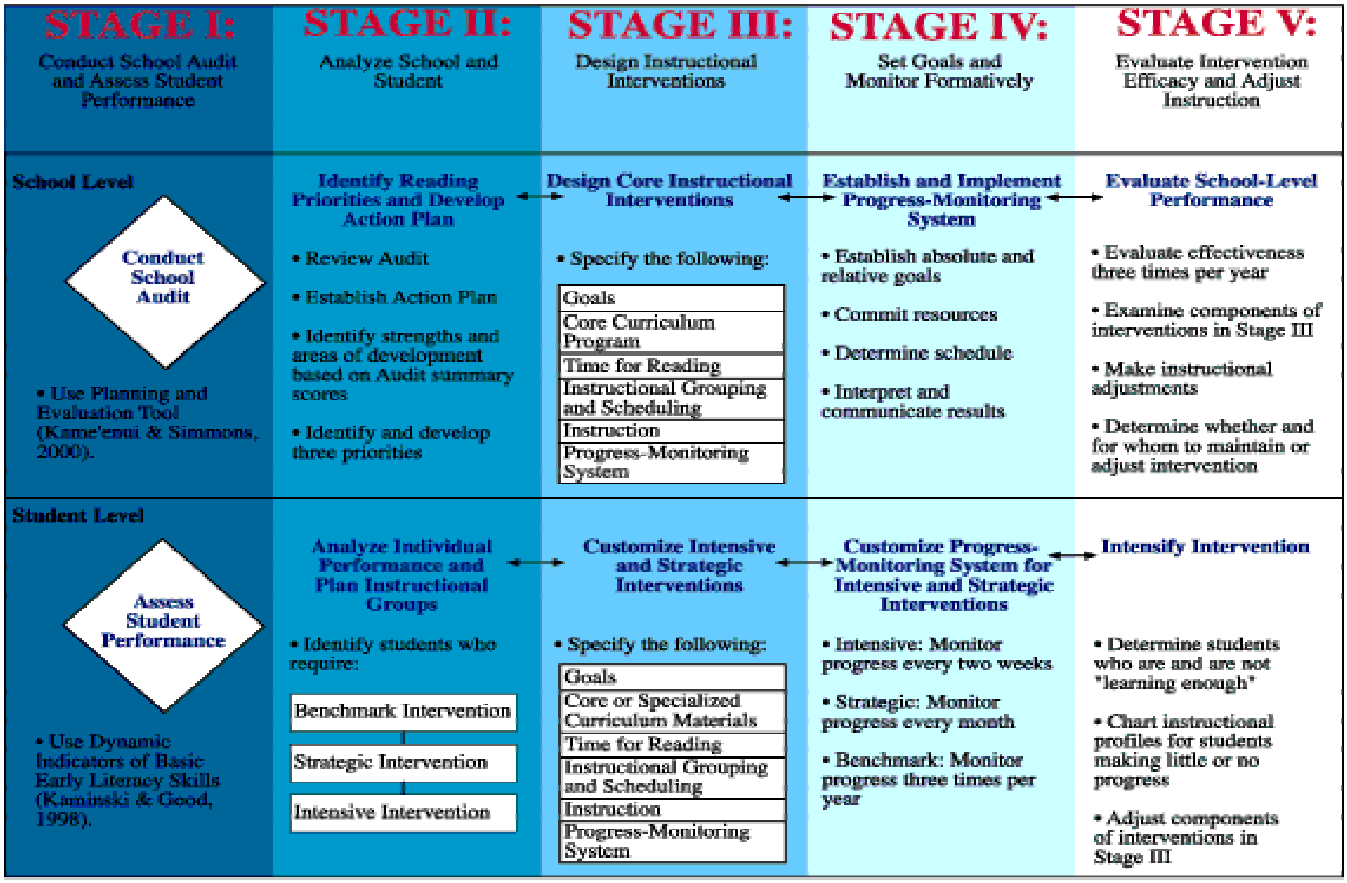
The translation of the knowledge base of beginning reading to practice in schools is built on and nurtured by a common set of components operationalized in the five stages of the model. A primary objective of this model is to prevent reading difficulty and disability and to intervene strategically to provide instruction as early and effectively as possible. For children who are having difficulty learning the essential components of reading, the model allows schools to determine: (a) the magnitude of the problem at a school level, (b) who will require strategic and intensive intervention, (c) essential dimensions of intervention and their contextual fit, (d) the amount of growth necessary to change early reading trajectories, (e) the effectiveness of the intervention, (f) the staff development needs of teachers to deliver the interventions, and (g) whether children are learning enough (Carnine, 1997). The methodological integration of content

knowledge of effective reading instruction (Adams, 1990; Lyon 1998; 2001; Snow, Burns & Griffin, 1998; National Reading Panel, 2000; Simmons & Kame'enui, 1998), general and special education research in assessment (e.g., Good, Simmons, & Smith, 1998), effective instructional design principles (Kame'enui & Carnine, 1998), and intervention models that fit the host environment (Sugai & Horner, in press) reveals the complexity of what is necessary to intercept and prevent early reading difficulties from becoming long -term, intractable difficulties.

Stage I: Conduct School Audit and Assess Student Performance K-3

Activities and actions in Stage I focus on two critical levels—the school and the individual student. As illustrated in Figure 3, the primary functions in Stage I are (a) for the school to conduct a thorough and instructionally focused audit of current reading practices and (b) to assess each student's reading performance on a set of screening measures that can be used to help identify which students require strategic and intensive interventions.

Figure 3: Stages and Levels of a Schoolwide Beginning Reading Model



Conduct school audit. The first goal for a school is to determine what is currently in place with respect to (a) instructional priorities, (b) reading assessment, (c) instructional practices and materials, (d) time allocated to reading instruction, (e) grouping and organizational strategies, (f) administrative involvement and decision making, and (g) professional development. To obtain this information, schools conduct an internal audit using the Planning and Evaluation Tool for Effective Schoolwide Reading Programs (Kame'enui & Simmons, 2000). The audit uses a 100-point scale divided across seven areas (e.g., goals and priorities, assessment) to quantify a school's current state of practice and the resulting data provides a first step in identifying areas of improvement. The tool's purpose is to quantify and develop awareness of a school's current

policies and practices in beginning reading. Figure 4 presents items from the Administration, Organization, and Communication element of the tool (see next page). As indicated, respondents complete six items in this area using a 0 - 2 scale (i.e., 0 = not in place, 1 = partially in place, and 2 = fully in place) and document evidence to support the rating. Schools work in grade-level teams or representative teams to evaluate prevailing practices and complete the seven components. The process can be unifying and instructive as teachers and administrators work together to take inventory of their schools' reading disposition. For example, from the items illustrated, schools may realize that while they have a principal who is highly knowledgeable of state standards and priorities and works effectively with staff to create a coherent plan for reading instruction, the coordination of instruction across Title I, special education, and general education may not be complementary and even insufficient to realize schoolwide performance goals. Discussion of how to use this tool follows (See Stage II).

Figure 4: Example of items from Planning and Evaluation Tool for Effective Schoolwide Reading Programs (Kame'enui & Simmons, 2000)

0 Not in place 1 Partially in place 2 Fully in place

EVALUATION CRITERIA	DOCUMENTATION OF EVIDENCE
VI. Administration/Organization/Communication—Strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and establishes mechanisms to communicate reading progress and practices.	
2 1. Administrators are knowledgeable of state standards, priority reading skills and strategies, assessment measures and practices, and instructional programs and materials.	
2 2. Administrators work with staff to create a coherent plan for reading instruction and institute practices to attain school reading goals.	
2 3. Administrators maximize and protect instructional time and organize resources and personnel to support reading instruction, practice, and assessment.	
2 4. Grade-level teams are established and supported to analyze reading performance and plan instruction. **1** 5. Concurrent instruction (e.g., Title I, special education) is coordinated with and complementary to general education reading instruction.	
1 6. A communication plan for reporting and sharing student performance with teachers, parents, and other stakeholders is in place.	

10 /12 Total Points: **80 %**

Percent of Implementation:

6 = 50% 10 = 80% 12 = 100%

Stage II: Analyze School and Student Performance

Identify reading priorities and develop an action plan. In Stage II, Reading First schools will review results of the school wide audit conducted in Stage I (See Figure 4). Results of the audit quantify what is in place, what is partially in place, and what is not in place along a range of critical dimensions (e.g., reading goals and objectives, assessment tools and strategies, instructional programs). The audit provides information at three levels: (a) an overall score based

on a total of 100 points that indicates relative ranking toward a standard, (b) dimension scores (i.e., curriculum programs and instruction, professional development), and (c) individual item scores (e.g., Is there a commonly articulated and understood set of goals in reading for each grade?). After reviewing and completing all items in the audit, schools summarize their overall level of reading implementation quantitatively (See sample, Figure 5 and 6), prioritize areas of improvement, and develop an "Action Plan" to direct schoolwide beginning reading improvement.

Figure 5: Sample summary of level of reading improvement from school audit

Element	**Score**	**Percent**
I. Goals/ Objectives/ Priorities	11.5/14	81.4%
II. Assessment	11.8/20	59.0%
III. Instructional Practices and Materials	15.0/22	68.0%
IV. Instructional Time	8.0/14	57.0%
V. Differentiated Instruction/Grouping	5.5/10	55.0%
VI. Administration/ Organization/ Communication	10.6/12	88.0%
VII. Professional Development	4.5/8	56.0%
Total Score	**66.9/100**	**67.0%**

As the percentile scores reflect in Figure 5, this school rated itself high in administration (88%) and goals (81%) and low in differentiated grouping (55%), instructional time (57%), and assessment (59%). The resulting priorities from this audit included (a) using assessment data to establish flexible grouping to provide differentiated instruction, (b) allowing time to share this information and inservice for all teachers regarding the assessment system and instructional implications, and (c) implementing assessments three times per year in phonemic awareness, phonics, and reading fluency and once per year in vocabulary and reading comprehension to assess progress and determine the need for strategic and intensive interventions. These priorities are documented in an action plan (See sample, Figure 6) and are used to guide reading improvement for the academic year.

Figure 6: A sample action plan of instructional priority.

PLANNING AND EVALUATION TOOL FOR EFFECTIVE SCHOOLWIDE BEGINNING READING PROGRAMS

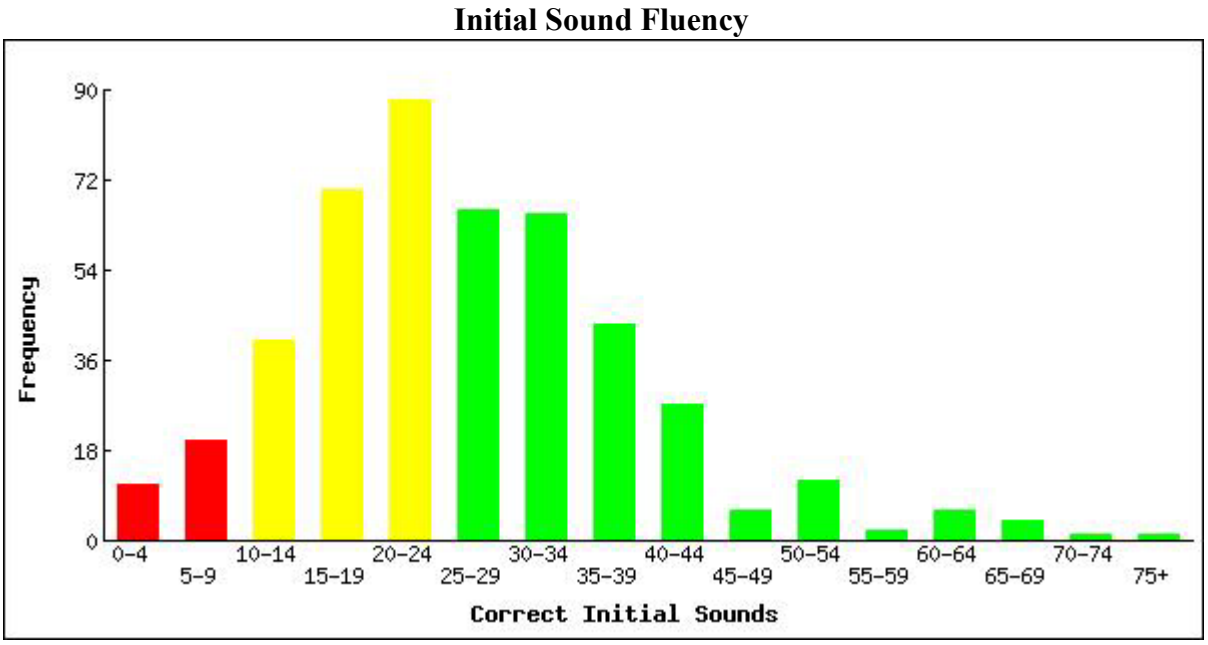
1. **Prioritization and Action**— Based on the previous listing of areas to improve, rank order three areas. The areas may include one element or items from several different elements.

Priority #1	**Action Plan**	**Who & When?**
To use screening and diagnostic assessment data to establish flexible grouping to provide differentiated instruction to benchmark, strategic, and intensive groups.	Teachers review data to establish instructional groups.	Classroom teachers 8/9/04
Priority #2	**Action Plan**	**Who & When?**
To allow time to share this information and inservice with other assessment data and the essential components of reading instruction. To continuously analyze our program and make changes as needed.	Review information in first faculty meeting.	Classroom teachers 8/9/04
Priority #3	**Action Plan**	**Who & When?**
To implement assessment timelines and measurements to determine instructional needs and interventions.	Develop schedule and assessment team.	Classroom, resource, and grade-level teachers 8/9/04

2. **Support Team Members and Schedule**—Identify the date, time, and place for the next schoolwide reading meeting.

Analyze individual performance and plan instructional groups. In Stage II, schools examine each learner's performance on critical prereading and reading skills to determine the scope and scale of instructional needs. On DIBELS measures, the web-based reports provide grade-level summary reports in the form of histograms that indicate the number of children by level of proficiency on a specific measure (See sample, Figure 7). In this example, all children enrolled in first grade were administered the Initial Sound Fluency Measure (ISF) of the DIBELS in January of 2001.

Figure 7 Sample Grade 1 January 2001 DIBELS Initial Sound Fluency Histogram; District Summary



Benchmark Goal: The benchmark goal is for all children to have phonological awareness skills of 25 to 35 on Initial Sound Fluency by the middle of Kindergarten.

January Status: In the middle of Kindergarten, students should have 25-35 initial sounds per minute on Initial Sound Fluency.

50% (n=233) Established

Students scoring 25 to 35 initial sounds per minute have established skills with the initial sounds in words. They typically are able to select words starting with a target sound and produce the initial sound in words. For students who have established Initial Sound Fluency, assessment and instructional focus should shift to Phoneme Segmentation Fluency. For these students, progress toward benchmark goals should be checked at the end of Kindergarten to ensure adequate growth.

43% (n=198) Emerging

Students scoring between 10 and 24 initial sounds per minute in the middle of Kindergarten have emerging initial sound skills. Students with emerging initial sound skills are likely to need additional instructional support in phonemic awareness to achieve benchmark goals. Progress toward benchmark goals should be monitored monthly.

7% (n=31) Deficit

Children scoring below 10 initial sounds per minute in the middle of Kindergarten have a deficit in initial sound skills. For children with a deficit in initial sounds, intensive intervention in phonemic awareness may be needed to achieve benchmark goals. Progress toward benchmark goals should be monitored at least every 2 weeks.

From the information on DIBELS performance, schools can determine which children have already reached benchmark goals and which have not (See Figure 8). Moreover, school-based Reading First teams and teachers can identify children who are at risk of not meeting benchmark goals. Benchmark goals indicate a level of performance on a particular measure that (a) establishes a solid, fluent proficiency and (b) forecasts future performance on higher-order skills. For example, reading 60 correct words per minute in the spring of first grade strongly correlates with reading 90 correct words per minute in the spring of second grade (Good, Simmons, & Kame'enui, 2001).

Figure 8: Dynamic Indicators of Basic Early Literacy Skills and R-CBM measures benchmark levels and goals

First Grade DIBELS Benchmark Goals

DIBELS Measure	Beginning of Year		Middle of Year		End of Year	
	Performance	**Status**	**Performance**	**Status**	**Performance**	**Status**
Letter Naming Fluency	LNF < 25 25 ≤ LNF < 37 LNF ≥ 37	At Risk Some Risk Low Risk				
Phonemic Segmentation Fluency	PSF < 10 10 ≤ PSF < 35 PSF ≥ 35	Deficit Emerging Established	PSF < 10 10 ≤ PSF < 35 PSF ≥ 35	Deficit Emerging Established	PSF < 10 10 ≤ PSF < 35 PSF ≥ 35	Deficit Emerging Established
Nonsense Word Fluency	NWF < 13 13 ≤ NWF < 24 NWF ≥ 24	At Risk Some Risk Low Risk	NWF < 30 30 ≤ NWF < 50 NWF ≥ 50	Deficit Emerging Established	NWF < 30 30 ≤ NWF < 50 NWF ≥ 50	Deficit Emerging Established
Oral Reading Fluency			ORF < 8 8 ≤ ORF < 20 ORF ≥ 20	At Risk Some Risk Low Risk	ORF < 20 20 ≤ ORF < 40 ORF ≥ 40	At Risk Some Risk Low Risk

Second Grade DIBELS Benchmark Goals

DIBELS Measure	Beginning of Year		Middle of Year		End of Year	
	Performance	**Status**	**Performance**	**Status**	**Performance**	**Status**
Oral Reading Fluency	ORF < 26 26 ≤ ORF < 44 ORF ≥ 44	At Risk Some Risk Low Risk	ORF < 52 52 ≤ ORF < 68 ORF ≥ 68	At Risk Some Risk Low Risk	ORF < 70 70 ≤ ORF < 90 ORF ≥ 90	At Risk Some Risk Low Risk

Third Grade DIBELS Benchmark Goals

DIBELS Measure	Beginning of Year		Middle of Year		End of Year	
	Performance	**Status**	**Performance**	**Status**	**Performance**	**Status**
Oral Reading Fluency	ORF < 53 53 ≤ ORF < 77 ORF ≥ 77	At Risk Some Risk Low Risk	ORF < 67 67 ≤ ORF < 92 ORF ≥ 92	At Risk Some Risk Low Risk	ORF < 80 80 ≤ ORF < 110 ORF ≥ 110	At Risk Some Risk Low Risk

Individual student performance on DIBELS and R-CBM is compared to the benchmark goals to identify children who require strategic or intensive intervention to reach benchmark goals (see Figure 11). Performance expectations are derived from research based criterion levels of performance (Hasbrouck & Tindal, 1992; Good et al., 2000), and students are identified for strategic or intensive intervention relative to how other students in their school perform and in comparison to research-based criteria. For example, a child entering first grade scoring less than 20 letter sounds per minute on the Nonsense-Word Fluency measure may require an intensive intervention, as the target criterion for the mid first grade benchmark is 50 correct letter-sounds per minute. Likewise, a student exiting second grade reading 40 words correct per minute may require a very intensive intervention, as the end-of-year target for correct words per minute is 90.

Children who are at greatest risk are identified from those at less risk. To operationalize this process, we use the following criteria.

Diagnostic Assessments

Students who require strategic or intensive interventions based on their performance on the screening measures are administered diagnostic measures to help establish specific areas of instructional need. Diagnostic measures are used in conjunction with teacher judgment during day-to-day instructional interactions to specify appropriate supplemental materials for use in strategic interventions and to plan individualized programs for students receiving intensive interventions. The mandatory measures that will be available for diagnosing instructional need are presented in Table I. For example, in the case of vocabulary and reading comprehension, data from the same measures that will be used to screen students and can be used for diagnostic purposes. With phonemic awareness, phonics, and fluency, additional measures will be administered for diagnostic purposes. (See Table 1 for mandatory site assessments).

Table I: Mandatory Site Assessment Measures

Measures by Essential Reading Components	**Screening**				**Diagnosis**				**Progress Monitoring**				**Outcome Assessments**			
Grade	K	1	2	3	K	1	2	3	K	1	2	3	K	1	2	3
Phonemic Awareness																
DIBELS 6th Ed.																
Initial Sound Fluency	X								X				X			
Phoneme Seg. Fluency	X	X							X	X			X	X		
Comprehensive Test of Phonological Processing (CTOPP)					X	X	X	X					X	X	X	X
Phonics																
DIBELS 6th Ed.																
Letter Naming Fluency	X	X							X	X			X	X		
Nonsense word Fluency	X	X	X						X	X	X		X	X		
Woodcock-Johnson III Basic Reading Cluster																
Letter- Word Identification	X	X	X	X	X	X	X	X					X	X	X	X
Word Attack	X	X	X		X	X	X	X					X	X	X	X
Fluency																
DIBELS 6th Ed.																
Oral Reading Fluency		X	X	X						X	X	X		X	X	X
Gray Oral Reading Test IV (GORT IV): RATE		X	X	X		X	X	X						X	X	X
Vocabulary																
Woodcock-Johnson III Tests of Achievement																
Reading Vocabulary	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Picture vocabulary	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Reading Comprehension																
Woodcock-Johnson III test of Achievement																
Passage Comprehension		X	X	X		X	X	X						X	X	X
Oral Comprehension		X	X	X		X	X	X						X	X	X
Degrees of Reading Power (DRP)							X	X			X	X			X	X

Students benefiting from benchmark reading intervention. In the following discussion, we assign a label to the type of intervention that is indicated by a student's performance rather than assign a label to the learner. This may appear a subtle shift but one we consider important. Our focus is to use student's performance on screening measures to help design the type of intervention necessary to change learning outcomes. Therefore, we focus on the intervention as opposed to the learner. Further, we use the term intervention, rather than instruction program or practice, as intervention consists of multiple components. These dimensions will be discussed further in Stage III.

Benchmark interventions are those instructional practices in general education that rely on comprehensive beginning reading programs, and that position students to meet or exceed commonly agreed upon reading goals and priorities. By design, they are intended to ensure that the majority of students in a given school achieve adequate (i.e., benchmark) levels of performance. The elements of benchmark intervention vary across schools, but the common factor is that the majority of students derive adequate benefit to pass school-, district-, and state - level assessments of reading. As a general rule, we suggest that benchmark intervention should prepare 80% or more of students in a school to read at grade level. The 80% criterion is a logical cut point. If more than 20% of students fail to reach benchmarks at designated intervals (see Figure 8), then the comprehensive reading program and practices are not adequately addressing the schools' needs. Recent studies synthesized by Lyon (1998; 2001) and colleagues at the National Institute of Child, Health, and Human Development indicate that a reasonable estimate is that 20% of children in schools will experience significant reading difficulties.

Students who attain benchmark performance on critical literacy skills (e.g., 35-45 phonemes per minute by the end of kindergarten) are on track to attain later reading outcomes (Good, Simmons, & Kame'enui, 2001). On phonemic awareness, phonics, and reading fluency, students receiving benchmark intervention are monitored three times a year in the fall, winter, and spring on relevant DIBELS measures to evaluate growth toward common goals. If a child's performance does not maintain adequate growth toward benchmark goals, appropriate interventions are provided. Students will also be assessed three times per year in vocabulary and reading comprehension. In addition, student performance on R-CBM will also be used as a possible indicator of vocabulary and reading comprehension problems.

Students in need of strategic intervention.
Students who receive strategic intervention typically are not acquiring and demonstrating foundational reading skills at high levels and rates of success. They may begin moderately below their average-achieving peers in critical areas or may start at adequate levels but fail to progress over time. For students who are not grasping and applying grade-level reading skills and strategies proficiently and fluently, we recommend more explicit, systematic, and timely intervention and monitoring. In general, strategic intervention is designed for students who need more than is typical of the general education curriculum and instruction.

Of the 20% of children who are likely to have difficulty in beginning reading, we reason that approximately 75% (15% of the total number of students) may need additional, strategic instructional support. Students in the strategic intervention group may exhibit mixed performance patterns; that is, some may perform well on one measure but low on another, while others may perform moderately below average on a range of measures. In some schools, students requiring strategic intervention may constitute a large number of students, while in other schools they may be a small number. The goal of strategic intervention is to identify children who are potentially at

risk of serious reading difficulty and to provide sufficient systematic instruction, delivered primarily through the use of more specialized supplemental materials, so that their performance rapidly reaches and exceeds benchmark levels. Shinn (1997) recommends frequent monitoring for students who are failing to demonstrate adequate rates of progress. In the Schoolwide Reading Improvement Model, students who are receiving strategic interventions in phonemic awareness, phonics, or reading fluency will have their progress assessed monthly.

Students who are receiving strategic interventions in vocabulary and reading comprehension specifically will have their progress monitored three times per year (as will all students in Reading First classrooms). More frequent monitoring than that for students receiving instructional interventions, though desirable, is not feasible given the length of administration time.

Students in need of intensive intervention.

Intensive intervention is recommended for students who are significantly at risk based on their extremely low performance on one or more measures of the essential instructional components in beginning reading. The greater the number of measures on which performance is low and the lower the performance across measures, the greater the risk. The need for immediate intensive intervention becomes more urgent when students display continued low rates of progress even when provided with strategic intervention. With effective benchmark and strategic intervention in place in the primary grades, it is estimated that approximately five percent of students would need intensive intervention (Torgesen, 2000).

Much like children with serious medical conditions, children in need of intensive intervention in reading are in acute need of early identification, the most effective interventions available, and frequent monitoring to ensure their reading performance does not remain seriously low. Educators must intervene with a sense of urgency and with the most effective tools and strategies available. Moreover, the intensive interventions should be short-term and temporary, rather like an intensive care unit in a hospital.

As illustrated in Stage II, student level of the model, children with similar performance profiles are grouped according to intervention needs (i.e., benchmark, strategic, intensive). The purpose of grouping is to ensure that children are given ample opportunities to receive instruction and to respond at their instructional level. As a rule, the number of students who receive intensive instruction should be smaller than either the strategic or benchmark groups. Groups should be dynamic rather than static. Strategic, ongoing, and frequent monitoring of performance when students are grouped homogeneously has been demonstrated to contribute to overall achievement effects (Guitiérrez & Slavin, 1992) and is critical for adjusting groups in response to instruction and assessment.

As a rule, approximately 20% of students in the fall would require strategic or intensive intervention. Identifying 20% of children in the fall for intensive intervention may constitute "over identification;" however, the consequences of providing extra intervention is considered far less risky than a wait-and-see position that withholds opportunity for additional instruction until students are seriously discrepant from their peers.

In addition to the 20% criterion, we employ research-based guidelines on selected DIBELS measures that predict success. For instance, a first-grade student who can identify 50 or more letter-sounds correctly on the Nonsense-Word Fluency measure of DIBELS in the winter of

Grade 1 is highly likely to read 40 correct words per minute on R-CBM (Good,et al., 2000) in the Spring of Grade 1. The correlational nature of the DIBELS measures allows schools and teachers to make high-probability predictions of success and risk. For example, a mid-year first grader who identifies only nine correct letter sounds on the Nonsense-Word Fluency measure is at serious risk of not attaining the end-of-year first grade oral reading fluency benchmark of 40-60 correct words per minute and would warrant more instructional support than students performing in the benchmark range.

Stage III: Design Instructional Interventions

The critical features of Stage III, which is arguably the most important and complex component of the Schoolwide Beginning Reading Model—intervention. Of foremost importance to the model is the instructional fit of the instructional reading intervention within the school's host environment; therefore, schools invest serious and sustained energy at this stage. Stage III decisions focus on (a) specifying and implementing a comprehensive beginning reading program as the benchmark intervention and (b) customizing strategic and intensive interventions for students who are not benefiting adequately from the benchmark intervention.

Designing a benchmark intervention. Two principles guide decisions in Stage III: (a) interventions are bigger than programs alone, and (b) identification and implementation of a research-based comprehensive beginning reading program provides the highest probability of success in the host environment. A common misperception is that once a comprehensive beginning reading program is identified and adopted, the reading intervention is "determined." Comprehensive beginning reading programs constitute a critical component of a schoolwide model, but, as documented in Stage III; Figure 3, benchmark intervention encompasses far more than adoption of an instructional program. The entire benchmark intervention begins with the review and adoption of grade-level goals. These goals may be state- or locally mandated standards or in some cases they may be school determined. Specifying grade-level expectations for all students is fundamental to benchmark intervention and provides the basis for other decisions. For example, if a kindergarten content standard is that students will be able to segment 2- and 3 -phoneme words, the comprehensive program should address this standard adequately and fully. Moreover, standards should specify the level of performance students should achieve. An example first-grade performance goal is "students will orally read 60 correct words per minute on grade-level text." Goal specification is a critical dimension of the schoolwide inventory (e.g., Planning and Evaluation Tool, Kame'enui & Simmons, 1999) conducted in Stage I and many schools allocate significant time specifying expectations for K-3 reading.

Once goals are specified and the magnitude of the school's need is evaluated in relation to the goals, school teams design the optimal school-level intervention that fits their host environment. Reading First school teams consist ideally of all professionals in the school who are responsible for reading achievement including the general education teachers, school administrators, school psychologist, speech and language specialist, Title I or reading support teacher, etc. In Stage III, school teams essentially move beyond "what does reading instruction look like in our school" to "what should reading instruction look like in our school?" Critical decisions such as time allocations for reading, instructional grouping procedures, who delivers instruction, where instruction is delivered, and so on are considered and specified explicitly. Schools invest considerable time designing this intervention map, document their plan of action in writing, and review this map at critical decision points throughout the year. In essence, the outcome of Stage

III is an intervention map that specifies what comprehensive instruction looks like for students in Kindergarten, Grade 1, Grade 2 and beyond.

Central to the instructional or intervention map is the selection of the research-based comprehensive program that fits the host environment or school. Reading First schools will select from a list of approved programs reviewed by multiple states Reading Curriculum Review Panels, such as Florida, Alabama, and Oregon. These programs will have solid, scientific evidence supporting their use and evidence supporting their ability to produce strong and positive results for children when implemented with fidelity.

A mentor coach and principal will work with collaborative grade-level intervention teams in initial intervention development and adaptation. Throughout the intervention process, collaborative intervention teams construct or customize the intervention from a menu of validated options. It is this "fit" within the school that further distinguishes this model from more traditional reading models.

Customize intensive and strategic interventions.
With the comprehensive reading intervention in place, the next set of decisions involves how to customize interventions for students who require strategic or intensive interventions to reach desired performance standards. This customizing will begin with analyzing student data on the diagnostic assessment, which provides an analysis of the students' instructional needs. Then, based on these needs, questions such as "Can the comprehensive beginning reading program be used, but in smaller groups?" "Could the student benefit from more instruction either through a longer period or an extra period of instruction, but with more use of a supplemental program?" "Could preteaching critical lesson components such as new phonic elements or story vocabulary result in adequate progress?" These questions relate to customization. In some cases, primarily strategic interventions, students may require supplemental materials that focus prominently on the essential instructional components of beginning reading. In other cases, customization may involve adding a second reading period. The degree and kind of customization must be determined at the school level and governed by student need, school resources, programs, and personnel.

Stage IV: Set Goals and Monitor Progress Formatively
The efficacy of the schoolwide model hinges largely on the ability of a school to document whether students are learning enough (Carnine, 1997). In Stage IV, schools assess all students' reading progress and evaluate each student's progress. A school's ability to document and act upon individual student performance dynamically, reliably, and formatively distinguishes it from the way the majority of schools use student performance data. Although norm-referenced, commercially-published measures of reading achievement do an adequate job of documenting groups of learners' performance at a given point in time (e.g., spring of year), these measures were not designed to monitor progress frequently and formatively over time or to provide information that can be used for instructional purposes.

Establish and implement a progress-monitoring system.
A key feature of the Schoolwide Beginning Reading Improvement Model is the essential linkage between assessment and instruction. This linkage is predicated on a simple but vital proposition: In the case of the DIBELS measures, we have valid, reliable, and efficient (one minute to administer) measures that when given early in a child's beginning literacy experience serve as powerful predictors (see appendix VII) of later reading success or risk. Two of the instructional

components for which the DIBELS measures can be used to monitor progress— phonemic awareness, and phonics—are critical in kindergarten and first grade, and the third—reading fluency—is critical in Grades 1, 2, and 3. Moreover, when the DIBELS measures are administered frequently, they can document student progress or lack thereof. For any school attempting to in serve all students, which requires serving each student, this is a powerful proposition with practical implications.

An effective and efficient progress-monitoring system consists of five critical factors: (a) reliable and valid measures with alternate forms that can be administered frequently, (b) established absolute and relative learning targets to e valuate whether the rate and slope of learning is adequate, (c) resources and personnel to prepare assessment materials, administer and score measures, and enter data, (d) a confirmed and commonly agreed upon schedule for collecting data, and (e) an efficient process for analyzing, summarizing, and reporting data to constituencies and for using student performance to inform instruction. Integrating assessment and instruction is not a novel concept and has long been a signature of effective special education (Deno, 1992; Fuchs & Fuchs, 1994). What is innovative and effective about this process is that the technology can be applied at the school level in time to catch children before they fail (Torgesen, 1998). At the present time, Kame'enui, Simmons and Good have built a website through which schools enter DIBELS and R-CBM data and immediately receive reports of student performance at the school and classroom levels, and if desired, at the district level. Information from these reports include the percentage of students at benchmark, strategic, and intensive intervention levels and class profiles delineating the individual performance of each learner across measures.

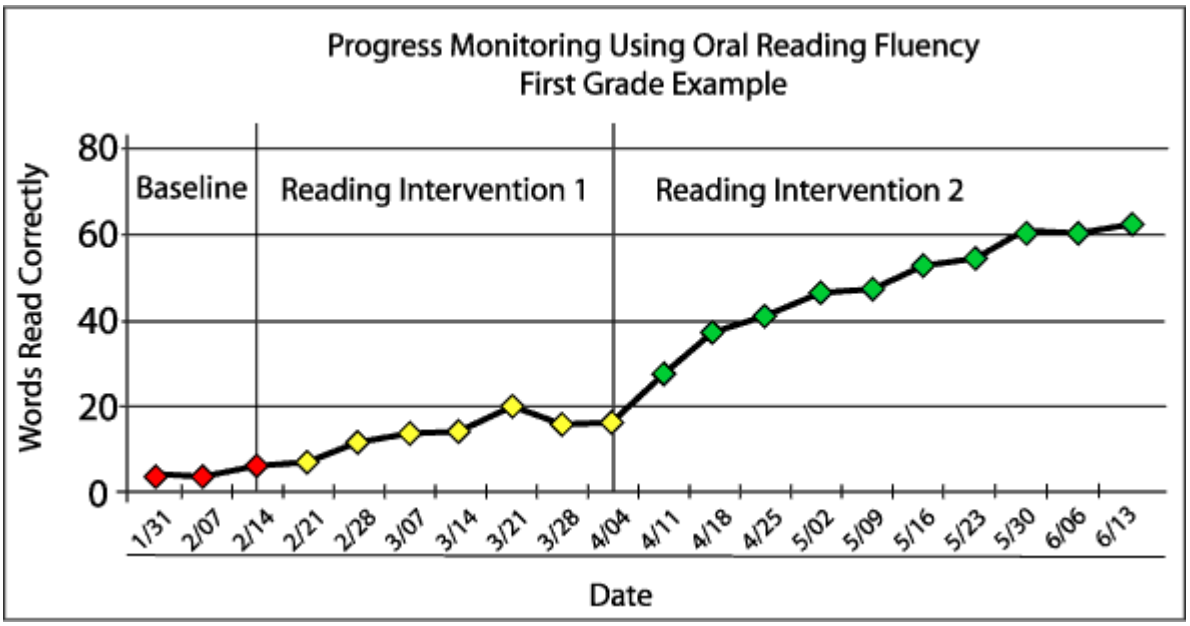
In summary, the schoolwide system of monitoring student performance and how to use the formative assessment system for students who are at greater risk of reading failure than the majority of children in the school is an essential element in a beginning reading improvement model.

Customize progress-monitoring system for intensive and strategic interventions.
For children who are receiving strategic or intensive interventions, it is important that their progress is monitored more frequently than students in the benchmark intervention group. For students who are having difficulty in the areas of phonemic awareness, phonics, and reading fluency, this is possible using the DIBELS measures. For students who are having difficulty in vocabulary and reading comprehension, the R-CBM measures will be used as one method of frequent progress monitoring because of the very strong relationship between oral reading fluency and vocabulary, and oral reading fluency and comprehension (Fuchs et al., 2000). In the areas of vocabulary and reading comprehension, the subtest of the Woodcock Johnson III Test of Achievement will be used to monitor progress in vocabulary, and the DRA will monitor progress in the area of reading comprehension.

The DIBELS measures can be administered more frequently to students receiving strategic and intensive interventions than even the three times per year that will be used with all students. Alternate forms of the same measures used for screening will be used for frequent progress monitoring. The primary difference between the benchmark assessments (i.e., three times per year) and the strategic and intensive progress monitoring is the frequency of administration and analysis. At the school level, all students are assessed three times per year to determine progress. Students in strategic interventions will be monitored monthly, and students in intensive interventions will be monitored more frequently (e.g., every 2-4 weeks). Learning targets are established, and each learner's performance on target goals is documented. The following graphic

depicts one first grade student's monthly progress on the Oral Reading Fluency measure. The student whose performance is reflected in Figure 9 was identified at the beginning of the year as needing intensive intervention based on his performance on oral reading fluency measure of DIBELS. As indicated in the graph, he met the end-of-first grade goal of 40-60 words per minute in April and continued to make progress through June. Through monthly monitoring, teachers can evaluate individual children's progress precisely and adjust instruction, if needed.

Figure 9:



Stage V: Evaluate Intervention Efficacy and Adjust Instruction

In the final stage of the model, the effects of intervention conducted in Stages I-IV are evaluated directly and interventions intensified as indicated by student performance. In this stage, schools address the following questions: Are the instructional interventions working for the full range of learners? Are students learning enough? What instructional adjustments must be made to enhance beginning reading performance?

Evaluate school-level performance.
Each school evaluates the performance of all students three times a year on phonemic awareness, phonics, and reading fluency. On vocabulary and reading comprehension, reading fluency is used a proxy for progress, and two direct measures are administered three times per year (such as Picture Vocabulary and Reading Comprehension). Progress is reviewed at each grade to evaluate the efficacy of the instructional intervention in the respective grades. Classroom teachers also receive summaries of students in their classrooms to identify specific children who need more effective instructional interventions. An advantage of the DIBELS measures is that specific goals can be set on each measure and progress monitored frequently during the year to determine progress toward specific goals.

When many students do not reach target benchmarks, Reading First school teams return to the instructional interventions planned in Stage III. First, Reading First teams evaluate critical

dimensions of the strategic and intensive interventions to identify the source of the difficulty. First-order questions include:
(1) Was the intervention implemented as planned or prescribed?
(2) Did students receive the amount of intervention specified for the time allocated?
(3) Were there high rates of absence for many learners?
(4) Did the size of instructional groups permit adequate opportunities for students to respond?
(5) Was progress monitored frequently to evaluate learning?

If review of the comprehensive dimensions of intervention indicates one or more deviations from what was planned, procedures should be put in place to increase fidelity of the planned intervention. If analysis reveals that all intervention components were implemented as planned, school teams review the list of alterable variables to determine what and how much to intensify. If performance trends are positive and adequate for all but a few children, then large-scale intervention adjustment is not warranted. Only if many students are failing to progress adequately is full review and adjustment of the comprehensive intervention components necessary.

Intensify intervention. On progress monitoring measures administered three times per year, decisions about intensifying interventions will be based on performance at each of the measurement time points and on the growth students make on these measures over time. On measures collected at more than three time points during the year (i.e., the DIBELS measures), each classroom teacher and the Reading First mentor coach will review the data to determine which children are making insufficient progress to attain targeted proficiency goals on each of the relevant measures. From this information, teachers assess each child's performance on multiple measures to determine if the student's performance is deficit, emerging, or established. Instructional recommendations are then based on the number of essential skills on which the student is experiencing difficulty and the magnitude of their educational need.

The following winter report for a first-grade class illustrates a mid-first-grade goal of 35-45 phonemes per minute on the Phonemic Segmentation Fluency measures and 50 letter sounds per minute on the Nonsense-Word Fluency measure (See Figure 10). In this class, nine children (e.g., John, Gillian, Beth) are benefiting from benchmark intervention, that is, the comprehensive beginning reading program. Benchmark intervention is the instructional recommendation for all children who score (a) 35 or more on phonemic segmentation and (b) 50 or more on nonsense word fluency. Another four children require strategic intervention. The criteria for recommending strategic intervention is (a) 11-34 on phonemic segmentation fluency, or (b) 20-49 on nonsense word fluency, or (c) less than 10 words correct per minute on R-CBM or (d) any combination of a, b, or c. Four children are recommended for intensive intervention. Criteria for intensive intervention include scores of (a) less than 10 on phonemic segmentation fluency, (b) less than 20 on nonsense word fluency, or (c) less than 10 on R-CBM.

In addition to evaluating absolute performance (i.e., where a student scores at one point in time), it is important to evaluate growth as well as the nature of performance differences. For example, although Suzy and Mandy both are recommended for intensive intervention, Suzy made enormous growth on phonemic segmentation from fall (0) to winter (58) and on nonsense words (from 0 to 39). Yet, she read only four words correct on the RCBM measure; hence, the reason for the intensive intervention recommendation. Mandy, however, grew from 10 to 19 on phonemic segmentation and from 4 to 15 on nonsense words. Although the intervention recommendation is for both children, the type of instructional focus would differ.

As indicated in the Student Level component of Stage V, determining how to intensify intervention is essential in Stage V of the Schoolwide Beginning Reading Improvement Model. A first-order question for students identified in need of intensive and strategic intervention is, "Have these children been attending school and receiving instruction?" or are there obvious participation issues that shed light on their low progress or performance levels? Answers to these questions may explain the differential progress rates of children such as Suzy and Mandy. If low performance cannot be explained by attendance factors, teachers then review and intensify levels of intervention to increase the probability that students will make satisfactory rates of progress. Common adjustments used to intensify interventions are (a) increasing the amount of time by providing double doses of reading instruction, (b) reducing the size of the instructional group, (c) using a more specialized and explicit instructional program, and (d) monitoring progress more frequently. A table of alterable components and specific adjustments follows (See Table 2).

Figure 10: First Grade Winter DIBELS and R-CBM Benchmark Teacher Report

Teacher: Mrs. Smith **District:** ABC School District
Grade: 1 **School:** Henry Walter Elementary

	Letter Naming	Phonemic Segmentation			Nonsense Word Fluency			Oral Reading Fluency		Instructional Recommendation Based Primarily on Nonsense
Student	**Fall**	**Fall**	**Winter**	**Status**	**Fall**	**Winter**	**Status**	**Winter**	**Status**	
Andy	22	16	50	Established	33	38	*Emerging*	11	*Emerging*	Strategic instruction
John	31	13	62	Established	42	66	Established	42	Established	Benchmark instruction
Suzy	6	0	58	Established	0	39	*Emerging*	4	non-reader	Intensive Instruction
Erin	42	0	23	*Emerging*	29	37	*Emerging*	18	*Emerging*	Strategic instruction
George	25	11		na	7		na			na
Gillian	44	28	56	Established	47	52	Established	23	*Emerging*	Benchmark instruction
Beth	57	25	49	Established	27	56	Established	46	Established	Benchmark instruction
Jorge	16	1	47	Established	32	50	Established	7	non-reader	Strategic instruction
Mandy	20	10	19	*Emerging*	4	15	Deficit	7	non-reader	Intensive Instruction
Maria	55	55	47	Established	59	70	Established	36	*Emerging*	Benchmark instruction
Fred	46	22	42	Established	45	62	Established	74	Established	Benchmark instruction
Neil	39	31	40	Established	35	53	Established	27	*Emerging*	Benchmark instruction
Pedro	40	14	40	Established	13	14	Deficit	13	*Emerging*	Intensive Instruction
Deborah	24	17	24	*Emerging*	39	17	Deficit	13	*Emerging*	Intensive Instruction
Edward	50	48	50	Established	49	48	*Emerging*	49	Established	Benchmark instruction
Katie	72	57	72	Established	40	57	Established	40	Established	Benchmark instruction
Josh	63	31	63	Established	50	31	*Emerging*	50	Established	Strategic instruction
Dave	36	24	50	Established	35	49	*Emerging*	27	*Emerging*	Benchmark instruction

Summary of Schoolwide Beginning Reading Improvement Model

Schoolwide beginning reading improvement involves the integration of two complex systems: (a) the scientific knowledge base of reading in an alphabetic writing system, and (b) the design and implementation of the knowledge base in a complex host environment (i.e., schools) comprised of people, practices, pedagogy, and policy. We advocate that the processes and procedures required to effect and sustain reading improvement are fundamentally the same whether the school is an inner city school in Anchorage or a rural school in Western Alaska. The translation of the knowledge base of beginning reading from the research literature to practice in schools is built on and nurtured by a common set of components operationalized in the five stages of the Schoolwide Beginning Reading Improvement Model.

Table 2: Alterable Components and Specific Adjustments Used To Intensify Intervention

Alterable Components	**Components Specific Adjustments**				
Opportunities to Learn	Development plan to increase attendance	Ensure instruction is provided daily	Increase number of opportunities for learner to respond	Increase teacher-directed instruction	Add another instructional period (double dose)
Program Efficacy	Pre-teach components of comprehensive program	Use supplemental materials that extend the comprehensive program	Replace supplemental materials	Replace comprehensive program	Implement specially designed program
Program Implementation	Model lesson delivery	Monitor implementation frequently	Provide mentor coaching and ongoing support	Provide additional staff development	
Grouping for Instruction	Check if students appropriately placed	Reduce number of students in group	Provide individual instruction	Change instructor	
Coordination of Instruction	Clarify instructional priorities	Establish concurrent reading periods/sessions	Provide complementary reading instruction across reading periods	Establish a communication system across instructors	